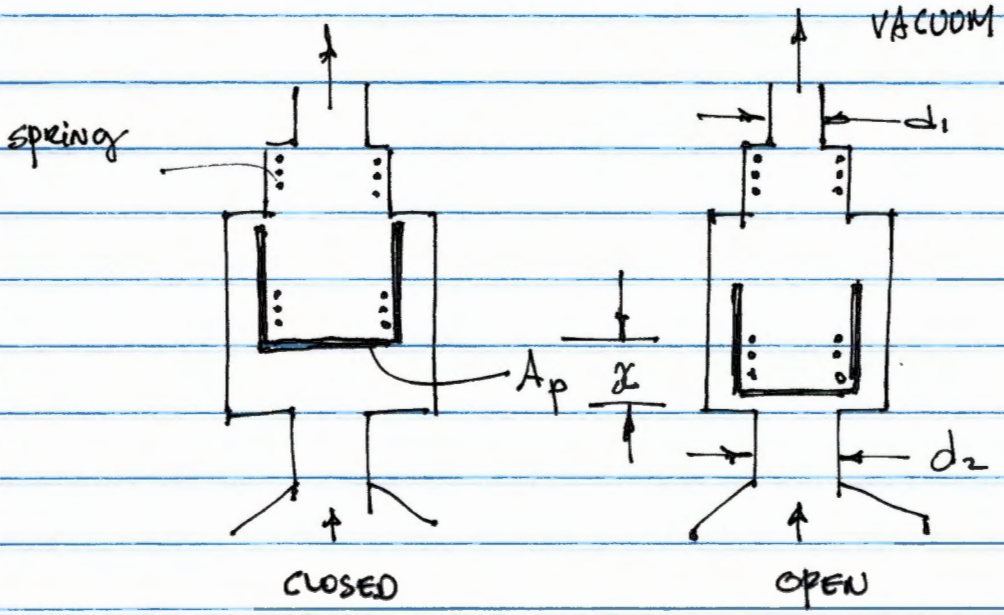
CHECK VALVE



$d_2 = \phi .197$ in^2

$d_1 = \phi .158$ in^2

$l_{spring} = .55$ in (FREE)

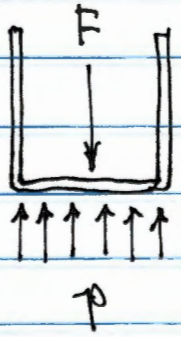
$k = .32$ lbs/in

INSTALLED LENGTH = .531

Compressed Length = .481

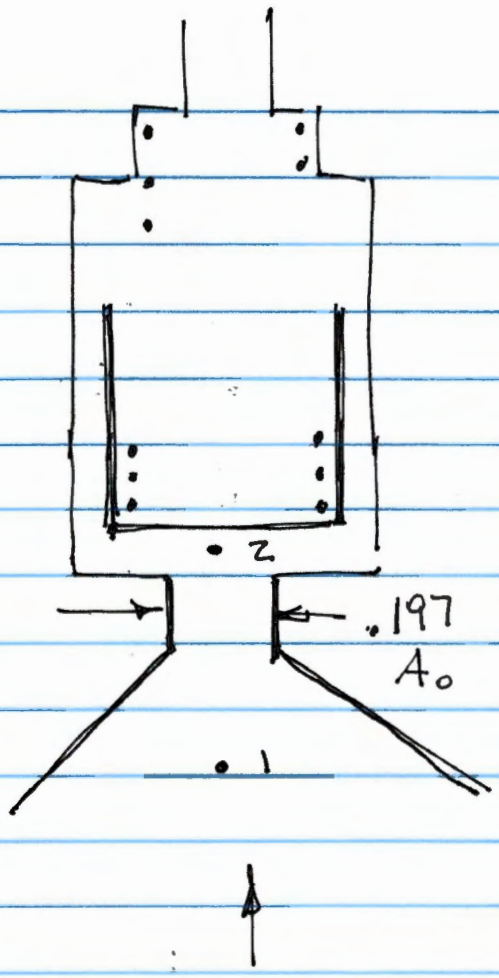
Spring Force $F = (.32)(.019) + (.32)(.531 - .481)$

$F = .022^{\#}$



$$p = \frac{F}{A_p} = \frac{.022}{.072} = .306 \text{ psi}$$

(2)



AT (2) $p = .306$ psi

AT (1) $p = 14.7$ psi

$\Delta p = p_1 - p_2 =$

$\Delta p = 14.7 - .306 = 14.394$ psi

volumetric flow $Q = C_f A_o \sqrt{\frac{2 \Delta p}{\rho}}$??